



SUN PRAIRIE
WATER & LIGHT
COMMISSION

05-GF-113
(5810)

PUBLIC SERVICE

P.O. Box 867 • 125 West Main Street • Sun Prairie, Wisconsin 53590 • (608) 837-5500 • FAX (608) 825-6001

January 29, 2003

Mr. Jim Loock, Chief Electric Engineer
Public Service Commission
610 N. Whitney Way
P.O. Box 7854
Madison, WI 53707-7854

RE: In the Matter of Filing Reporting Requirements for Appropriate Inspection and
Maintenance, PSC Rule 113.0607(6)

Dear Mr. Loock:

Enclosed for filing are 3 copies of Sun Prairie Water & Light's report to the commission,
submitted every two years, showing compliance with its Preventative Maintenance Plan.

Very truly yours,

Edward T. Straus
Assistant Utility Manager

Enclosures

RECEIVED

JAN 31 2003

Electric Division

TWO YEAR REPORT DOCUMENTING COMPLIANCE WITH THE PREVENTATIVE MAINTENANCE PLAN

Sun Prairie Water & Light Commission

**FILING DEADLINE
FEBRUARY 1, 2003**

January 30, 2003

Edward Straus

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Sun Prairie, WI 53590

(608) 837-5500

estraus@wppisys.org

01/30/03
10:59 AM
SERVICE

This report format was prepared by the MEUW work group for PSC Rule 113.0607 for use by the 82 municipal electric utilities in Wisconsin and endorsed by PSC staff as meeting the requirements of Rule PSC 113.0607.

I Reporting Requirements: PSC 113.0607(6) states;

Each utility shall provide a periodic report to the commission showing compliance with its Preventative Maintenance Plan. The report shall include a list of inspected circuits and facilities, the condition of facilities according to established rating criteria, schedules established and success at meeting the established schedules.

II Inspection Schedule and Methods:

SCHEDULE:	MONTHLY	ANNUAL	EVERY 5 YEARS
Transmission ($\geq 69\text{Kv}$)		X	X
Substations	X	X	
Distribution (OH & UG)			X

METHODS: Five criteria groups will be used to complete the inspection of all facilities.

1. **IR** – infrared thermography used to find poor electrical connections and/or oil flow problems in equipment.
2. **RFI** - Radio Frequency Interference, a byproduct of loose hardware and connections, is checked using an AM radio receiver.
3. **SI** – structural integrity of all supporting hardware including poles, crossarms, insulators, structures, bases, foundations, buildings, etc.
4. **Clearance** – refers to proper spacing of conductors from other objects, trees and conductors.
5. **EC** – equipment condition on non-structural components such as circuit breakers, transformers, regulators, reclosers, relays, batteries, capacitors, etc.

Distribution facilities will be inspected by substation circuits on a 5 year cycle such that the entire system will be inspected every 5 years. Inspector instructions for inspecting all facilities and forms are included in the plan.

III Condition Rating Criteria

This criterion, as listed below, establishes the condition of a facility and also determines the repair schedule to correct deficiencies .

- 0) Good condition
- 1) Good condition but aging
- 2) Non-critical maintenance required – normally repair within 12 months
- 3) Priority maintenance required – normally repair within 90 days
- 4) Urgent maintenance required – report immediately to the utility and repair normally within 1 week

IV Corrective Action Schedule

The rating criteria as listed above determine the corrective action schedule.

V Record Keeping

All inspection forms and records will be retained for a minimum of 10 years. The inspection form contains all of the required critical information i.e. inspection dates, condition rating, schedule for repair and date of repair completion.

VI Reporting Requirements

A report and summary of this plan's progress will be submitted every two years with the first report due to the Commission by February 1, 2003. The report will consist of a cover letter documenting the percent of inspections achieved compared to the schedule and the percent of maintenance achieved within the scheduled time allowance.

VII Inspected Circuits and Facilities

Circuit # and description	Substation
South Bay	Bird
Bristol St.	Bird
Columbus St.	Bird
South Bird	Bird
Angell Park	South 1
Linnerud Dr.	South 1
Clarmar Dr.	South 2
High School	South 2
N. Thompson	Colorado
S. Thompson	Colorado
Town Hall	Business Park
Business Park	Business Park
Wilburn Rd.	Business Park

Base load and peaking generation, less than 50 megawatts per unit in size, is typically subject to pre-operational checks, in addition to checks and maintenance during and after periods of operation. Emergency generation is test run and maintained to confirm its operational readiness.

VIII Scheduling Goals Established and Success of Meeting the Criteria:

It was the goal of the Sun Prairie Utility to inspect all substations monthly and annually, and to inspect 20% of the distribution system annually. We expected to complete all the scheduled maintenance.

Resulting from the inspections within the time periods specified in the rating criteria. All of the inspection goals were met or exceeded. We inspected 60% of the distribution system rather than 40%. Six urgent and two priority items were found and repaired within 7 days. Of the non-critical maintenance items found 75 have been repaired and the remaining are being scheduled for repair.

IX Facility condition – rating criteria:

During the past two years Sun Prairie inspected 60% of its distribution system and all substation inspections were completed on time. Of the items found requiring maintenance, all were repaired before they were responsible for an outage. Storm related outages have been reduced in part do to an aggressive tree-trimming program, equipment failure outages are minimal. Animal contact is still our biggest outage cause. Most of the distribution system is less than 20 years old with many of the primary distribution feeders being less than 15 years old. Our substations have been upgraded on a regular schedule with one being completely rebuilt this year. Overall the system is in excellent condition.